

FORM PTO-1449 (Modified [6-1]) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT(S)' INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 21182-7067	SERIAL NO. Not yet assigned 09/918,874
	INVENTOR MARDER, et al.	
	FILING DATE Herewith 07/30/01	GROUP ART UNIT Not yet assigned 1712

1c978 U.S. PTO
 09/918874
 07/30/01

REFERENCE DESIGNATION		U.S. PATENT DOCUMENTS					
EXAM'R INITIAL		DOCUMENT NUMBER	DATE	NAME	Class	Subclass	Filing Date If Appropriate
* RDL	A1	4,041,476	08/09/77	Swainson, et al.	340	173	07/23/71
*	A2	4,078,229	03/07/78	Swainson, et al.	340	173	01/27/75
*	A3	4,238,840	12/09/80	Swainson, et al.	365	119	04/22/77
*	A4	4,288,861	09/08/81	Swainson, et al.	365	127	01/22/79
*	A5	4,333,165	06/01/82	Swainson, et al.	365	120	12/01/77
*	A6	4,466,080	08/14/84	Swainson, et al.	365	106	04/15/81
*	A7	4,471,470	09/11/84	Swainson, et al.	365	127	02/22/82
*	A8	5,034,613	07/23/91	Denk, et al.	250	458.1	11/14/89
*	A9	5,268,862	12/07/93	Rentzepis	365	151	04/25/89
*	A10	5,523,573	06/04/96	Hanninen, et al.	250	459	12/28/94
*	A11	4,014,871	03/29/77	Kormány, et al.	260	240 C	08/06/75
*	A12	4,165,434	09/21/79	Schäfer, et al.	544	197	06/01/77
*	A13	4,271,395	06/02/81	Brinkman, et al.	331	94.5 L	01/03/78
*	A14	5,009,815	04/23/91	Wakita, et al.	252	582	02/09/90
*	A15	5,086,239	02/04/92	Wang	359	328	02/22/90
*	A16	5,451,494	09/19/95	Diehl, et al.	430	522	07/22/94
*	A17	5,670,090	09/23/97	Marder, et al.	252	582	06/01/95
* RDL	A18	5,795,729	08/18/98	Lee	435	24	02/05/96

FOREIGN PATENT DOCUMENTS								
EXAM'R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	Subclass	TRANSLAT'N	
							yes	no
<i>RDL</i>	B1	2187734	7/90	Japan	252	582		X

OTHER ART (Include Author, Title, Date, Pertinent Pages, etc.)		
* RDL	C1	Anderson, et al., "Two-photon absorptivities of the all <i>trans</i> α , ω -diphenylpolyenes from stilene to diphenyloctatetraene via three wave mixing," <i>J. Chem. Phys.</i> 70 (9), pp. 4310-15 (1979).
* RDL	C2	Beljonne, et al., "Two-photon absorption and third-harmonic generation of di-alkyl-amino-nitro-stilbene (DANS): A joint experimental and theoretical study," <i>J. Chem. Phys.</i> 103 (18), pp. 7834-43 (1995).
* RDL	C3	Bhawalkar, et al., "Efficient, two-photon pumped green upconverted cavity lasing in a new dye," <i>Opt. Comm.</i> 124, pp. 33-37 (1996).
* RDL	C4	Birge, "An Introduction to Two-Photon Spectroscopy," <i>Spectroscopy of Biological Molecules: Theory and Applications - Chemistry, Physics, Biology, and Medicine</i> , No. 39, pp. 457-71 (1983).
* RDL	C5	Bimbaum, et al., "Location of a 1A_g state in bithiophene," <i>J. Chem. Phys.</i> , 96 (4), pp. 2492-95 (1992).
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* RDL	C7	Brede, et al., "Photo- and Radiation-induced Chemical Generation and Reactions of Styrene Radical Cations in Polar and Non-polar Solvents," <i>J. Chem. Soc. Perkin Trans. 2</i> , pp. 23-32 (1995).
* RDL	C8	Carre, et al., "Biphotonic process for recording holograms with continuous-wave lasers in the near infrared," <i>Optics Letters</i> , 12 (9), pp. 646-47 (1987).
* RDL	C9	Casstevens, Martin K., et al., "A New Class of Materials for Optical Power Limiting", in Nonlinear Optical liquids and power limiters; Proceedings of the Meeting, San Diego, CA, July 30-31, 1997 (A98-22080 05-74), Bellingham, Society of Photo-Optical Instrumentation Engineers (SPIE Proceedings, Vol. 3146), 1997, p. 152-159.
* RDL	C10	Cha, et al., "Two photon absorption of di-alkyl-amino-nitro-stilbene side chain polymer," <i>Appl. Phys. Lett.</i> 65 (21), pp. 2648-50 (1994).
* RDL	C11	Couris, et al., "Concentration and wavelength dependence of the effective third-order susceptibility and optical limiting of C_{60} in toluene solution," <i>J. Phys. B: At. Mol. Opt. Phys.</i> 28, pp. 4537-54 (1995).

EXAMINER <u>LOVERING</u>	DATE CONSIDERED <u>4-23-03</u>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant(s).	

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* <i>Ref</i>	C12	Denk, et al., "Anatomical and functional imaging of neurons using 2-photon laser scanning microscopy," <i>J. Neuroscience Methods</i> 54, pp. 151-62 (1994).
* <i>Ref</i>	C13	Denk, et al., "Two-Photon Laser Scanning Fluorescence Microscopy," <i>Science</i> 248, pp. 73-76 (1990).
* <i>Ref</i>	C14	Desai, et al., "Laser-Induced Polymerization within Carbon Disulfide Clusters," <i>J. Phys. Chem.</i> , 99 (6), pp. 1786-91 (1995).
* <i>Ref</i>	C15	El-Shall, et al., "Comparative Polymerization in the Gas Phase and in Clusters. 2. Electron Impact and Multiphoton-Induced Reactions in Isobutene and Benzene/Isobutene Clusters," <i>J. Am. Chem. Soc.</i> , 117 (29), pp. 7744-52 (1995).
* <i>Ref</i>	C16	Fuke, et al., "Two-Photon Absorption spectrum of Trans-Stilbene, Trans-Cis Photoisomerization via Upper 1A_g State," <i>Chem. Phys. Lett.</i> 74 (3), pp. 546-548 (1980).
* <i>Ref</i>	C17	Goodman, et al., "Two-Photon Spectra of Aromatic Molecules," <i>Acc. Chem. Res.</i> 17, pp. 250-57 (1984).
* <i>Ref</i>	C18	He, et al., "Nonlinear optical properties of a new chromophore," <i>J. Opt. Soc. Am B</i> 14 (5), pp. 1079-87 (1997).
* <i>Ref</i>	C19	He, et al., "Studies of two-photon pumped frequency-upconverted lasing properties of a new dye material," <i>J. Appl. Phys.</i> 81 (6), pp. 2529-37 (1997).
* <i>Ref</i>	C20	He, et al., "Two-photon absorption and optical-limiting properties of novel organic compounds," <i>Opt. Lett.</i> 20 (18), pp. 435-37 (1995).
* <i>Ref</i>	C21	He, et al., "Two-photon absorption based optical limiting and stabilization in organic molecule-doped solid materials," <i>Opt. Comm.</i> , 117, pp. 133-36 (1995).
* <i>Ref</i>	C22	He, et al., "Upconversion dye-doped polymer fiber laser," <i>Appl. Phys. Lett.</i> 68 (25), pp. 3549-51 (1996).
* <i>Ref</i>	C23	Hunter, et al., "Potentials of two-photon based 3-D optical memories for high performance computing," <i>Applied Optics</i> 29 (14), pp. 2058-66 (1990).
* <i>Ref</i>	C24	Itoh, et al., "Dual Fluorescence of Diphenylpolyenes," <i>J. Phys. Chem.</i> , 91 (7), pp. 1760-64 (1987).
* <i>Ref</i>	C25	Itoh, et al., "Fluorescence quantum yields of α, ω -diphenylpolyenes," <i>Spectrochimica Acta</i> 50A (13), pp. 2261-63 (1994).
* <i>Ref</i>	C26	Jones, et al., "Direct observation of the 2^1A_g electronic state of carotenoid molecules by consecutive two-photon absorption spectroscopy," <i>J. Photochem. Photobiol. A: Chem.</i> 68, pp. 59-75 (1992).
* <i>Ref</i>	C27	Kennedy, et al., " p -Bis(o-methylstyryl)benzene as a Power-Squared Sensor for Two-Photon Absorption Measurements between 537 and 694 nm," <i>Anal. Chem.</i> 58 (13), pp. 2643-47 (1986).
* <i>Ref</i>	C28	Kim, et al., "Synthesis of Electroluminescent Polymer containing charge Transport and Emissive Chromophores on Polymer Skeleton," <i>Chemistry Letters</i> , pp. 587-88 (1995).
* <i>Ref</i>	C29	Kohler, et al., "Fluorescence from the 1^1B_u State of Diphenylhexatriene: Inversion of the 1^1B_u and 2^1A_g Levels in CS_2 ," <i>J. Phys. Chem.</i> , 92 (18), pp. 5120-22 (1988).
* <i>Ref</i>	C30	Kohler, et al., "Saturation kinetics of the S_0 to S_2 optical transition in isolated diphenylhexatriene," <i>J. Chem. Phys.</i> , 82 (7), pp. 2939-41 (1985).
* <i>Ref</i>	C31	Kumar, et al., "Optical nonlinearity in a mode-locking dye: optical limiting and four wave mixing," <i>Chemical Physics Letters</i> 245, pp. 287-91 (1995).
* <i>Ref</i>	C32	Lakowicz, et al., "Two Photon-Induced Fluorescence Intensity and Anisotropy Decays of Diphenylhexatriene in Solvents and Lipid Bilayers," <i>Journal of Fluorescence</i> 2 (4), pp. 247-58 (1992).
* <i>Ref</i>	C33	Lin, et al., "Dual Fluorescence of p, p' -Disubstituted 1,6-Diphenyl-1,3,5-hexatrienes: Evidence of a Twisted Intramolecular Charge Transfer State," <i>J. Phys. Chem.</i> 93 (1), pp. 39-43 (1989).
* <i>Ref</i>	C34	Luo, et al., "One- and Two-Photon Absorption Spectra of Short Conjugated Polyenes," <i>J. Phys. Chem.</i> 98 (32), pp. 7782-89 (1994).
* <i>Ref</i>	C35	Maiti, et al., "Measuring Serotonin Distribution in Live Cells with Three-Photon Excitation," <i>Science</i> 275, pp. 530-32, 601-1997
* <i>Ref</i>	C36	Maruo, et al., "Three-dimensional microfabrication with two-photon-absorbed photopolymerization," <i>Opt. Lett.</i> 22 (2), pp. 132-34 (1997).
* <i>Ref</i>	C37	McEwan, et al., "Picosecond-induced Nonlinear Absorption in Liquid Crystal Media," <i>J. Nonlinear Opt. Phys. and Mater.</i> 4 (1), pp. 245-60 (1995).
* <i>Ref</i>	C38	Mertz, et al., "Single-molecule detection by two-photon-excited fluorescence," <i>Optics Letters</i> 20 (24), pp. 2532-34 (1995).
* <i>Ref</i>	C39	Narang, et al., "Characterization of a New Solvent-Sensitive Two-Photon-Induced Fluorescent (Aminostyryl)pyridinium Salt Dye," <i>J. Phys. Chem.</i> 100 (11), pp. 4521-25 (1996).
* <i>Ref</i>	C40	Parma, et al., "Two-Photon Absorption of 7-Hydroxycoumarin," <i>Chem. Phys. Lett.</i> 54 (3), pp. 541-43 (1978).
* <i>Ref</i>	C41	Parthenopoulos, et al., "Three-Dimensional Optical Storage Memory," <i>Science</i> 245, pp. 843-45 (1989).
* <i>Ref</i>	C42	Plakhotnik, et al., "Nonlinear Spectroscopy on a Single Quantum System: Two-Photon Absorption of a Single Molecule," <i>Science</i> 271, pp. 1703-05 (1996).
* <i>Ref</i>	C43	Prasad, et al., "Multiphoton Resonant Nonlinear Optical Processes in Organic Molecules," ACS Symposium, Chapter 13, pp. 225-36 (1996).

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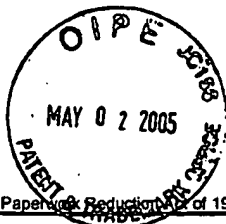
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* ROJ	C44	Puccetti, <i>et al.</i> , "Chain-Length Dependence of the Third-Order Polarizability of Disubstituted Polyenes. Effects of End Groups and Conjugation Length," <i>J. Phys. Chem.</i> , 97 (37), pp. 9385-91 (1993).
* ROJ	C45	Rava, <i>et al.</i> , "Regularities in the two-photon spectra of polysubstituted benzenes," <i>J. Chem. Phys.</i> , 77 (10), pp. 4912-19 (1982).
* ROJ	C46	Rice, <i>et al.</i> , "Two-Photon, Thermal Lensing Spectroscopy of Monosubstituted Benzenes in the ${}^1B_{2u}({}^1L_u) \leftarrow {}^1A_{1g}({}^1A)$ and ${}^1B_{1u}({}^1L_u) \leftarrow {}^1A_{1g}({}^1A)$ Transition Regions", <i>J. Phys. Chem.</i> 90, pp. 6793-6800 (1986).
* ROJ	C47	Roux, <i>et al.</i> , "Two-photon-absorption-induced luminescence in organic waveguide couplers," <i>J. Opt. Soc. Am. B</i> , 12 (3), pp. 428-33 (1995).
* ROJ	C48	Said, <i>et al.</i> , "Third- and fifth-order optical nonlinearities in organic materials," <i>Chem. Phys. Lett.</i> 228, pp. 646-50 (1994).
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* ROJ	C50	Strickler, <i>et al.</i> , "3-D Optical Data Storage by Two-Photon Excitation," <i>Adv. Mater.</i> 5 (6), pp. 479-81 (1993).
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* ROJ	C52	Strickler, <i>et al.</i> , "Two-photon excitation in laser scanning fluorescence microscopy," <i>SPIE</i> 1398, pp. 107-18 (1990).
* ROJ	C53	Sutherland, <i>et al.</i> , "Two-photon absorption and second hyperpolarizability measurements in diphenylbutadiene by degenerate four-wave mixing," <i>J. Chem. Phys.</i> 98 (4), pp. 2593-2603 (1993).
* ROJ	C54	Tackx, <i>et al.</i> , "Distinction of two-photon absorption from other nonlinear loss mechanisms by phase-conjugate interferometry," <i>Appl. Phys. Lett.</i> 65 (3), pp. 280-82 (1994).
ROJ	C55	Williams, <i>et al.</i> , "Two-photon molecular excitation provides intrinsic 3-dimensional resolution for laser-based microscopy and microphotochemistry," <i>The FASEB Journal</i> 8, pp. 804-13 (1994).
ROJ	C56	Wong, <i>et al.</i> , "Measurements of $\chi^{(3)}(\omega; \omega, -\omega, \omega)$ in conducting polymers at $\lambda=620$ nm," <i>Synthetic Metals</i> 49-50, pp. 13-20 (1992).
ROJ	C57	Xu, <i>et al.</i> , "Determination of absolute two-photon excitation cross sections by <i>in situ</i> second-order autocorrelation," <i>Optics Letters</i> 20 (23), pp. 2372-74 (1995).
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* ROJ	C60	Zhao, <i>et al.</i> , "Newly Synthesized Dyes and Their Polymer/Glass Composites for One- and Two-Photon Pumped Solid-State Cavity Lasing," <i>Chem. Mater.</i> 7 (10), pp. 1979-83 (1995).

OTHER ART (Include Author, Title, Date, Pertinent Pages, etc.)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	09/918,874
		Filing Date	July 30, 2001
		First Named Inventor	MARKER, Seth
		Art Unit	1712
		Examiner Name	Metzmaier, Daniel S.
Sheet 2	of 2	Attorney Docket Number	86102/8148

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DSM	AF	CUMPSTON B H et al: "New Photopolymers Based on Two-Photon Absorbing Chromophores and Application to Three-Dimensional Microfabrication and Optical Storage" Materials Research Society, Pittsburg, PA, US. Vol. 488, 6, May 1998 (1998-05-06), pgs 217-225, XP008000191, ISSN: 0272-9172.	
DSM	AG	Barlow S et al; "Design, Synthesis and Applications of Two-Photon Absorbing Organic Molecules"; Polymer Preprints, American Chemical Society, US, Vol. 39, No. 2, August 19 1998 (1998-08), pg. 1116, XP000878658; ISSN: 0032-3934.	
DSM	AH	EUROPEAN INTERNATIONAL SEARCHING AUTHORITY, "European Search Report", cited in corresponding European Patent Application No. EP 99918616.6, dated January 19, 2005, 6 pages.	

Examiner Signature	<i>Daniel S. Metzmaier</i>	Date Considered	1-11-2006
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